vations of many hundreds of points are given in feet above sea level, and to illustrate the careful nature of the work, it may be noted that those measured by spirit-level are distinguished from those dependent upon the barometer.

It is to be hoped, in the interest of map-making in this country that Mr. Nell may see his way clear to extending his work and making this one of a series.—*H. Gannett.*

HAECKEL'S SYSTEM OF MEDUSÆ.[1] — The early reputation of Haeckel rested mainly on his great work on the Radiolaria, a magnificent and costly folio volume with numerous beautifully executed plates; this was succeeded by his smaller works on the Monera and other invertebrate animals; his great work on sponges then succeeded; in the embryological portion of this work some errors have naturally been detected by subsequent observers. Then Haeckel prepared his popular, more general works, *i. e.*, the General Morphology, his History of Creation and Anthropology. In these works he gave rein to his imagination, and while he attempted to solve problems insoluble in our day and with our present knowledge, and though opening up new lines of investigation, yet committed some extravagances of scientific thought, and in some statements, and especially illustrations from his prolific pencil, overstrained or actually misrepresented nature to suit his own generalizations or ideas. This laid him open to criticism, especially from other observers of eminence, those whom Haeckel had mercilessly and at times coarsely vituperated for what seemed to him blunders and shortcomings, though the charges he made against others have recoiled upon himself. It has been of late a current remark, that Haeckel has lost prestige and that his work upon the whole is not to be depended upon. Hence the scientific public are perhaps taken by surprise at the energy, strength of purpose, industry, accuracy and great skill in delineation shown in the work before us, a work analytical in intention, thoroughly systematic, and which is said by those most competent by long acquaintance with the jelly fishes to judge, to be quite up to the best of Haeckel's systematic and anatomical work. We confess we have a hearty sympathy for those pioneers in biology who, in endeavoring to open up new paths of research, are not afraid to work at times in the dark, and indulge in what prove in some cases to be hasty generalizations, or far-fetched conclusions from too scanty facts. We all forget that Newton emitted several theories which were short lived, and that the best of observers and thinkers sometimes do what proves later to be rash, useless or actually misleading work.

The part before us describes the Craspedote, or naked-eyed

[1] *Das System der Medusen. Erster theil einer Monographie der Medusen.* Von Dr. ERNST HAECKEL. Mit einem Atlas m. 40 plates. Erste hälfte des ersten Theils. System der Craspedoten. 20 Tafeln. Jena, 1879, folio. (Denkschriften der Med. Naturwissenschaftlichen Gesellschaft zu Jena.) Pages 360.

Medusæ, the first legion of the class Medusa. There is no preface or introduction, but the descriptive part opens with a systematic register of the orders, families, genera and species of the legion; then are given the synonymy and characters of the Craspedotæ, of the two sub-legions into which they are divided, then of the orders and minor subdivisions, the definitions being detailed with explanatory remarks. The synonymy and descriptions of the species are fully given, so that the whole is a comprehensive monograph of the naked-eyed Medusæ of the globe; an ambitious undertaking, but one apparently well carried out.

The work is richly illustrated, the large plates being crowded with elegantly drawn figures; they are not so delicate as the illustrations of the Radiolaria, being chromo-lithographs, but are calculated to give some idea of the richness of tints of these beautiful and delicate marine forms; the illustrations are all drawn by the author, and the anatomical details are full and elaborately presented.

The author is anxious to receive specimens of jelly fishes from the Pacific coast for description in the remaining parts of this work, and those who are favorably situated should by all means contribute to the material which will be so well used. From the excellent figures of alcoholic specimens in this work, it is evident that specimens can be preserved and transmitted great distances in spirits.

RECENT BOOKS AND PAMPHLETS.—A sketch of the history of the fossil Vertebrata of India. By R. Lydekker. 8vo, pp. 36, 1880. From the author.

List of the members of the American Philosophical Society. 8vo, pp. 72, 1880. From the society,

Proceedings of the American Philosophical Society. 8vo, 1880, pp. 511–598.

Notes on the Geology of the Iron and Copper Districts of Lake Superior. By M. E. Wadsworth. (Bull. Mus. Comp. Zoöl., Geol. Ser., Vol. I.) 8vo, pp. 157, pls. 6, 1880. From the author.

Descriptions of new species of North American Fishes. By David S. Jordan. (From Proc. U. S. Nat. Mus.) 8vo, pp. 9, 1880.

Description of a new species of Sebastichthys (*Sebastichthys miniatus*) from Monterey bay, California. By D. S. Jordan and C. H. Gilbert. 8vo, pp. 6, 1880.

On the Generic Relations of *Platyrhina exasperata*. By D. S. Jordan and C. H. Gilbert. 8vo, pp. 1, 1880.

Notes on a collection of Fishes from San Diego, Cal. By D. S. Jordan and C. H. Gilbert. 8vo, pp. 12.

Description of a new Flounder (*Xystreurys liolepis*) from Santa Catilina island, Cal. By D. S. Jordan and C. H. Gilbert. 8vo, pp. 16, 1880.

Notes on Sharks from the Coast of California. By D. S. Jordan and C. H. Gilbert. 8vo, pp. 1, 1880.

Description of a new species of Ray (*Raia stellulata*) from Monterey, Cal. By D. S. Jordan and C. H. Gilbert. 8vo, pp. 7, 1880.

Description of a new Agonoid Fish (*Brachyopsis xyosternus*) from Monterey bay, Cal. By D. S. Jordan and C. H. Gilbert. 8vo, pp. 6, 1880. From the authors.

Remarks on the species of the genus Chirus found in San Francisco market, including one hitherto undescribed. By W. N. Lockington. 8vo, pp. 5, 1880.

Description of a new Fish from Alaska (*Uranidea microstoma*). By W. N. Lockington. 8vo, pp. 2, 1880.